

AMENDMENT OF THE CLAIMS

The listing of the claims below replaces all prior claim listings.

1-432. (Cancelled)

433. (Previously presented) Nanoparticles having at least two types of oligonucleotides attached thereto, the oligonucleotides being present on a surface of the nanoparticles at a surface density of at least 10 picomoles/cm², at least one type of oligonucleotides comprises recognition oligonucleotides, the recognition oligonucleotides comprising a spacer portion and a recognition portion, the recognition portion having a sequence complementary to at least one portion of the sequence of a nucleic acid or another oligonucleotide; and a second type of oligonucleotides comprises diluent oligonucleotides, wherein the spacer portion of the recognition oligonucleotides and diluent oligonucleotides have functional groups that are attached to the nanoparticles.

434. (Previously presented) The nanoparticles of Claim 433 wherein the oligonucleotides are present on the surface of the nanoparticles at a surface density of at least 15 picomoles/cm².

435. (Previously presented) The nanoparticles of Claim 433 wherein the oligonucleotides are present on the surface of the nanoparticles at a surface density from about 15 picomoles/cm² to about 40 picomoles/cm².

436. (Previously presented) The nanoparticles of Claim 433 wherein the nanoparticles are metal nanoparticles or semiconductor nanoparticles.

437. (Previously presented) The nanoparticles of Claim 436 wherein the nanoparticles are gold nanoparticles.

Claims 438 to 440 (Cancelled)

441. (Previously presented) The nanoparticles of Claim 439 wherein the spacer portion comprises at least about 10 nucleotides.

442. (Previously presented) The nanoparticles of Claim 441 wherein the spacer portion comprises from about 10 to about 30 nucleotides.

443. (Previously presented) The nanoparticles of Claim 439 wherein the bases of the nucleotides of the spacer portion are all adenines, all thymines, all cytosines, all uracils or all guanines.

444. (Cancelled)

445. ((Previously presented)The nanoparticles of Claim 433 wherein the diluent oligonucleotides contain about the same number of nucleotides as are contained in the spacer portions of the recognition oligonucleotides.

446. (Previously presented) The nanoparticles of Claim 445 wherein the sequence of the diluent oligonucleotides is the same as that of the spacer portions of the recognition oligonucleotides.

Claims 447 to 494 (Cancelled)